CONSIDERING LORRAINE CODE'S ECOLOGICAL THINKING AND STANDPOINT EPISTEMOLOGY: A THEORY OF KNOWLEDGE FOR AGENTIC KNOWING IN SCHOOLS?

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Schooling in the U.S. is increasingly understood through the lenses of science and accountability. From the National Research Council's *Scientific Research in Education (SRE)* to the No Child Left Behind Act (NCLB), colleges and schools have faced a marked increase (or steady reinforcement) in practices which conform to principles of scientific management and accountancy. One way to understand such a focus is to view policy and practice as having, promoting, authorizing, and being supported by particular ways of knowing. What constitutes student knowing and student knowledge? What is privileged in schools when it comes to determining what students know? That is, what counts as knowing and inquiry?

Teachers, parents, and policymakers claim to know that and what students know. Teachers know that their students know Shakespeare by having them recite monologues. Parents know that their children know when their children are promoted from course to course or grade level to grade level. Policymakers know that students know (and that teachers taught) when schools make Adequate Yearly Progress. It seems, too, that everybody knows that the primary purpose of school is to learn the necessary skills to get a job in the global marketplace. But what if this "knowing" is so narrowly construed that the primary agents for knowing in schools—students and teachers—are structurally restricted in their potential for knowing? What appears to matter most in current U.S. schools is that students adopt already assumed norms for classroom interaction and provide what are already deemed correct answers to already accepted questions. In place of assumed and restrictive epistemological structures, this paper argues that ecological thinking and standpoints for knowing should be primary elements in a general theory of knowledge for reconstructing schools and schooling as sites for agentic knowing.² Lorraine Code claims

that despite the profusion of ecological discourses and despite contestations in the politics of ecology, the creative, restructuring possibilities of ecological thinking have yet to be realized. As humanism vied with theism in the seventeenth and eighteenth centuries, ecological thinking vies with capitalism in the twenty-first century: it engages so many interwoven, often contradictory issues—feminist, classist, environmental, post-colonial, homophobic, racist, sexist—that it requires multi-faceted chartings.³

One goal in this paper is to chart a facet Code briefly touches on in her work, childhood development and learning. Another goal is to bridge epistemology and education in order to reveal epistemological assumptions already present in school where these assumptions do not take into account the varied, contextual standpoints of students and teachers. Some of the key themes that inform Code's work, and this work, include Linda Alcoff's "new versions of coherence," Code's notion of "epistemic responsibility," Sandra Harding's "strong objectivity," and Donna Haraway's "situated knowledges." In short, these scholars advance a challenge to what they call "orthodox" epistemology by asserting standpoint epistemology that is not relativistic. In so doing, they replace standard accounts of knowledge and knowing subjects (in the "S knows account) with an embodied, actively engaged, syllogistic contextualized, social knower. I name this social knower "student" and "teacher" in order to bridge the ecological and epistemological with schools and schooling.

ALCOFF'S NEW VERSION OF COHERENCE

Alcoff goes beyond standard coherentism, the view that claims a consistent system or web of beliefs is necessary for a belief to be justified, by including the "systematic interrelationships of both discursive and nondiscursive features of [Foucaultian] regimes of truth." For Alcoff, "values, politics, and knowledge are *intrinsically* connected," and thus challenge traditional hierarchies and divisions within philosophy, replacing them with "more holistic and coherentist models." Her version of coherence "humanizes" epistemology while her Gadamerian link to historical context provides a non-arbitrary understanding of place and time. As Maureen Linker puts it,

Alcoff is able to humanize epistemology and metaphysics while still making room for the possibility of norms and standards of justification. Her use of coherence preserves its virtues—the fact that it is not essentially an individualistic epistemology, its ability to include seemingly disparate factors of belief formation, its immanent account of knowers and their beliefs—while adding to our understanding of the relationship between coherence and a "real" account of truth.

Part of the reason Alcoff, and ultimately Code, is able to forge new ground among what might seem like unbridgeable elements within epistemology (e.g., coherentist and relativist theories of truth) is that she draws on and extends the arguments of Donald Davidson and Hilary Putnam. Both Davidson and Putnam are fully aware of how problematic the analytic/synthetic, objectivist/subjectivist binaries are, but they still argue for a non-relativist theory of truth. What Davidson and Putnam also do, however, is "leave unanalyzed significant sociological and historical factors, thus obscuring a 'real' account of knowers and their location within epistemic communities."

Code fills in where Davidson and Putnam leave off, though not in any clearly articulated theory of schooling, and I return at the end of this paper to take up the issue of relativism. Before then, I lay out three other strands that help explain Code's larger epistemological theory and the relationship between that theory and schooling.

"STRONG OBJECTIVITY"

Sandra Harding's notion of "strong objectivity" is what she offers in contrast to "weak objectivity," where "weak objectivity" is characterized by modern scientism: asserting value neutral inquiry that is free from political interference. The problem she raises is that politics can be understood as having at least two kinds: 1) "the older notion of politics as the overt actions and policies intended to advance the interests and agendas of so-called special interest groups" (e.g. Nazi science, Lysenkoism, and creationist biology); and 2) a different kind of politics where "power is less visibly, less consciously, and not on but through the dominant institutional structures, priorities, research strategies, technologies, and languages of the sciences—through the practice and culture that constitute a particular scientific episode."¹⁰ Paradoxically, "weak objectivity" thus results in a positive form of depoliticized science and a negative form, too. Just as Code and others would agree with keeping science beyond the realm of, say, Nazi scientific experiments, the extreme case of the Nazis actually reinforces the second part of the paradox. As Robert Proctor writes, "The Nazis depoliticized science by destroying the possibility of political debate and controversy. Authoritarian science based on the 'Fuhrer principle' replaced what had been, in the Weimar period, a vigorous spirit of politicized debate in and around the sciences." According to Harding, the

institutionalized, normalized politics of male supremacy, class exploitation, racism, and Eurocentrism, while only rarely initiated through the kind of violent politics practiced by the Nazis, similarly authoritarianly depoliticized Western scientific institutions and practices, thereby shaping our images of the natural and social worlds and legitimating past and future exploitative public policies. ¹²

"Weak objectivity," then, is a term of derision insofar as it is not "strong" enough to grapple with the contextualized realities of diverse societies. "Weak objectivity" in schools, by extension, takes as given the validity of tracking, special education labeling, and SAT score comparisons by school or county. In each of these examples, considerations of race and class are marginalized in favor of "best practices" rationales that reinforce long-standing tradition over difference and debate.

"Strong objectivity," in contrast, means not throwing out science, but revising it such that what Harding calls the "neutrality ideal" is knocked from its current pedestal and replaced by vigorous debate and contestation. Science, she notes, already only produces claims that are less false than other hypotheses (when those hypotheses are tested against a select set of competing claims). She does not, therefore, want to give up a general notion of objectivity when it could stand, in her words, for us "being fair" and making "decisions by principle, not by whim or fiat." Instead of giving up on the notion of objectivity altogether, she wants to reformulate it as meaning an "indigenous resource" that "needs updating, rehabilitation." Harding's notion of "strong objectivity" risks reinforcing scientific rationality, as she admits, but only if it is disconnected from the standpoint epistemology to which she tethers it. It is here where Code's epistemological project intersects with Harding, as Code is also concerned that scientific rationality has resulted in a narrow and limiting theory of knowledge.

Code's overriding thesis is that the dominant model of knowledge and epistemology in Anglo-American philosophy produces an *epistemological monoculture* both in the academy and in everyday life, whose consequences are to suppress and choke out ways of knowing that depart from the stringent dictates of an exaggerated ideal of scientific knowledge making. ¹⁵

She goes further in criticizing orthodox epistemology when she borrows from Max Horkheimer and Theodore Adorno and writes that it was developed out of a reading of the Enlightenment legacy that emphasizes "the calculability of the world" as what makes knowledge-as-mastery possible, and reinforced by the undeniable successes of physical and psychological science, this model demarcates the epistemic domain so as to exclude from knowledge properly so called "whatever does not conform to the rule of computation and utility." One need only consider corporate-aligned textbooks, standardized curricula, and the testing industry to understand the link bridging epistemology with schooling proper.

Anglo-American critique of philosophy "epistemological monoculture," is similar to the role schools play in reifying standardization and control. Just as Anglo-American philosophers advance a spectator theory of knowledge, schools do something similar. By utilizing highstakes testing, both students and teachers become subordinated to a standardized approach to both content and method. 17 Add arbitrary and fixed notions of time to such an approach and it yields procedural protocols that subordinate or dismiss context and difference. One specific result is that teaching to the test becomes common and rarely problematized or contextualized—much like the "S" in the traditional syllogism of epistemology. What gets "approved" to become the standardized curriculum for states consist of a collection of artifacts and bits of data that are sequentially ordered for their utility and ease of dissemination. Transmitting information from curriculum and standardized textbooks to teacher to student is then seen by policymakers as a problem of efficiency: how to transmit the information so that more of it gets transmitted more easily and more quickly. Indeed, efficiency and

accountability go hand-in-hand. They become the arbiters for "what works" in education. They, in turn, reduce what it means to teach, to learn, and to know because student and teacher standpoints are primarily understood as variables to control.

In place of this reductionism, ¹⁸ Code proposes "that specifically located, multifaceted analyses of knowledge production and circulation in diverse biographical, historical, demographic, and geographic locations generate more responsible knowing than the reductionism endemic in the positivist post-Enlightenment legacy can single-handedly allow." Code suggests that framing the larger point ecologically will "reconfigure their interconnections so as to radicalize their effects for women and erstwhile Others in socially and politically transformative ways." By extension, Code's notions of epistemic responsibility and epistemic virtue relate almost directly to schools and schooling. Schools, under a Codean analysis, become specific sites for exploration and understanding—where context and student backgrounds and interests are taken seriously as central features of a process of knowing. When student questioning becomes central, Code's responsibilist thesis comes to the fore. As John Heil writes of Code's perspective,

a responsibilist rejects the Cartesian conception of knowers as self-sufficient, disembodied intellects accepting and rejecting propositions in accord with timeless universal principles. Knowers, instead, are to be regarded as agents, members of communities of knowers, replete with epistemic duties and obligations. Such duties and obligations are strictly analogous to those in the moral realm. Epistemic agents can no more opt out of these than can their moral counterparts. Indeed, at bottom, any sharp separation of moral and epistemic agency is a misleading abstraction.²¹

Code's work, then, reinforces the sociality of humans while not setting them adrift in isolated solipsism or isolating relativism. Given that groups in society demonstrate and pass on social values, including those deemed moral or of good character, the group and the individual are symbiotic. What follows, for Code, is an epistemic responsibility placed on members of society to "know well," that is, to understand. Students, so the parallel would go, should know well, that is, to understand. Understanding and knowing well are more complex than, say, answering a question correctly on a high-stakes test. Understanding indicates depth and connection. When students in AP English, for example, stand and successfully recite a soliloquy, their "success" is in the recitation, but not necessarily in understanding or knowing well. What is the *meaning* of the passage? Here is where epistemic responsibility comes into play. The one claiming knowledge must be able to back up her claim. She has a responsibility to herself and to those around her to explain her reasons, her interpretations, indeed, as the embodied, ecologically-influenced knower herself. A version of

showing one's work, the point is not to make the student "accountable" in the current popular sense of policing. Instead it is to advocate agentic knowing.

One problem for Code, at least in her earlier work Epistemic Responsibility, is that she deemed there to be pedagogical exemplars, perhaps akin to Anytus' version of role models in Plato's Meno. She, like many others, believed or was led to believe that there are "realities" (of schooling practice) that simply *must* exist. Applied to schooling, teachers are role models, multiplication tables are a necessary feature of mathematics, and letters come before words that come before sentences that come before paragraphs, etc. Code overcomes this perennialism or essentialism in *Ecological Thinking* when she understands the limits of "model-dom" under the aegis of Piaget and other psychologisms.²² To ascribe the role of "model" to all teachers prior to them teaching means that externalist abstractions ossify into "givens" that restrict the possibilities of what it might mean to teach. With curriculum set beforehand, with teachers' manuals open and ready to read, and with school grade-level structures so deeply assumed to be valid, the externality of models and developmental psychology are accepted as correct by parents, students, teachers, and policymakers. Ecologically, what this sets up is a structure in which knowing is restricted to that which fits within the structure. For Anglo-American philosophy it is arguably the structure of syllogistic logic and an epistemological monoculture. For U.S. schools the structure is one that is so "managed," standardized, and individually competitive as to deny the likelihood of agentic knowing or what Donna Haraway calls situated knowledge.

Haraway's notion of situated knowledge means "feminist objectivity." Akin to Harding's notion of "strong objectivity," Haraway understands the general term "objectivity" as code for "science tied to militarism, capitalism, colonialism, and male supremacy—to distance the knowing subject from everybody and everything in the interests of unfettered power." The result is a reliance of the idea of "vision" as disembodied, thus "neutral." Her point is to play on the "view from nowhere" disposition assigned by feminist and other epistemologists to the traditional syllogistic approach to knowing (the "S" in "S knows that p..." is a disembodied "S"). An extended quote helps clarify the connection between the "view from nowhere" and vision, writ large:

The eyes have been used to signify a perverse capacity....The instruments of visualization in multinationalist, postmodernist culture have compounded these meanings of disembodiment. The visualizing technologies are without apparent limit. The eye of any ordinary primate like us can be endlessly enhanced by sonography systems, magnetic resonance imaging, artificial intelligence-linked graphic manipulation systems, scanning electron microscopes, computed tomology scanners, color-enhancement techniques, satellite

surveillance systems, home and office video display terminals, cameras for every purpose from filming the mucous membrane lining the gut cavity of a marine worm living in the vent gases on a fault between continental plates to mapping a planetary hemisphere elsewhere in the solar system. Vision in this technological feast becomes unregulated gluttony; all seems not just mythically about the god trick of seeing everything from nowhere, but to have put the myth into ordinary practice.²⁵

Haraway's use of "god trick" substitutes for the "view from nowhere" represented by a disembodied "S" in the traditional syllogism. The problematized notion of vision that Haraway offers is eerily adaptive to schooling situations. Teachers and the curriculum, on this interpretation, arguably represent the conduit for the material constitutive of the "view from nowhere," that is, the disembodied "facts" that constitute coursework. This point is important to understanding and confronting the limited agency often seen in contemporary schools. The "god trick" is the hegemony of scientism, accountability narratives, standardized lesson plans, the disembodied "model" as teacher, the AP/Honors track, the unquestioned pledges and routines, etc. Opposed to this "view," are teachers and students who have standpoints that position them on a "terrain of subjugated knowledges." They understand that their roles are to understand more: more about problem-solving, more about themselves, more about the messy and disorderly realities of their lives and others' lives inside and outside of school. They understand that the "god trick" presumes an order that is not always, or even frequently, evident in their lives. They, teachers and students as agentic knowers, understand subjugation, margins, and the "messiness" that constitutes their living and their learning.

"PASSIONATE DETACHMENT": TOWARD AGENTIC KNOWING

Haraway thinks this subjugation perversely allows for a unique possibility: "passionate detachment" from the totalizing meta-narrative of technorationality and scientism. For teachers and students, the utilization of "passionate detachment" means developing questions about the realities they face in schools. By understanding that standpoints exist and that teachers and students have subjugated standpoints *is* the point of the project of developing agentic knowers.

The subjugated have a decent chance to be on to the god trick and all its dazzling—and, therefore, blinding—illuminations. "Subjugated" standpoints are preferred because they seem to promise more adequate, sustained, ["strongly"] objective, transforming accounts of the world. But *how* to see from below is a problem requiring at least as much skill with bodies and language, with the mediations of vision, as the "highest" technoscientific visualizations. ²⁸

Maxine Greene's notion of "naming" obstacles and oppressions might provide Haraway with one way to address the problem of "how to see from below." Greene suggests that "in the classroom opened to possibility and at once concerned with inquiry, critiques must be developed that uncover what masquerade as neutral frameworks...." Questioning neutral frameworks is the same as questioning the god trick, but Code recognizes that those who question represent place, space, and time in important ways. Her notion of ecological thinking, therefore, "reconfigures relationships all the way down: epistemological, ethical, scientific, political, rational, and other relationships between and among living beings [including in schools] and inanimate parts of the world." Thus, the goal is to link epistemology with schools in order to engage both teachers and students in the agentic knowing project of naming obstacles in the ecological spaces they both occupy. The goal requires that

an ecologically derived epistemology is differently sensitive to the detail and larger patternings of human and "natural" diversity than the epistemologies of mastery have been: it invokes criteria and standards of knowing well that do in fact seek and respect empirical evidence, while urging another, arguably better, way of imagining knowledge and its place in social-political, geographic structures [including schools]. ³¹

Code is not, in other words, offering a reactionary position that dismisses all empirical evidence. In not "throwing the baby out with the bath water," Code is advocating a view of epistemology and schooling that "is better able to animate feminist, multicultural, and other postcolonial transformative politics and practices, whose effectiveness requires bracketing and reevaluating ossified assumptions," ³² like "the basics," school as preparation for future work, and standardized testing assumptions of empirical purity.

As Code notes, "with its realist commitment to reading observational evidence respectfully, while recognizing that evidence cannot speak for itself, but achieves its status *as* evidence out of human-nature encounters,...epistemic practice has marked affinities with...*agential realism*..."

Agential realism provides the ontological backdrop for agentic knowers because it not only elevates the positionality of, for example, students and teachers, it requires connections to others in non-individualist ways. That is, the epistemology advocated here could be understood, broadly, as a social epistemology. There are no "individual knowers" who exist apart from social relations. Beyond this seeming truism, it means that students who are required to "take their own notes" and "keep their eyes on their own tests" are structurally placed into an untenable and unrealistic position. They learn as social agents navigating the ecology of the classroom. The problem is that there is a separating off of the space of the classroom, the curriculum, and the roles of students and teachers such that engagement with others lessens over time.

From actively engaged group learners in early schooling, students and teachers are pushed into (and push?) a contrived individualism under the pretence of neutrality and meritocracy as they advance in a logico-sequential series of imposed ideals (e.g., learning objectives, grade levels, reading levels, "best practices").

Questioning in this environment is understood as raising one's hand in response to predetermined, test-prep-oriented content. The curriculum is an abstract Other that does not allow engagement, negotiation, and understanding on any other terms than its own. In this way, schooling represents a totalizing, disembodied externality that also reinforces its own version of the god trick. "Say and repeat" drills, end of chapter questions, and state-imposed curriculum "benchmarks" or "outcomes" each reify a view from nowhere insofar as students (and teachers?) are not viewed as generative meaning-makers. They only act as response mechanisms to superimposed standards. Accordingly, the practices of schooling reinforce epistemic individualism: the view that a "knower is a faceless, dispassionate, infinitely replicable 'individual' who *knows* only when he suppresses interdependence both situational and personal, along with affect, meaning, and indeed all aspects of his sociality and individual*ity*."³⁴

The ecological importance of this point relates to transactional realism and constitutes, according to Tom Colwell, a central feature of human-world interaction.³⁵ Specifically, Colwell uses John Dewey's distinction between individualism and individuality. For Dewey, like Code, individualism is reductionistic and self-centered. Individualism is about "me." Individuality, on the other hand, includes "me," but also recognizes the world and others around me.

THE GUARD AGAINST RELATIVISM, REDUX

By furthering sociality and individuality (v. individualism), Code risks being understood as an "anything goes" relativist. She actually makes much of the point that relativism is unacceptable in an ecological account of knowing. This is the point to which I referred earlier and is used here as a way to further clarify the meaning of ecological thinking and agentic knowing. Instead of relativism, Code argues for a version of fallibilism that is tied to political agency. In her critique of orthodox epistemology, she indicts the law and medicine—and I have extended it to schools and schooling—for furthering the distancing view from nowhere that is the logical opposite of relativists' views from everywhere. Just as medical diagnostic procedures remain uncontested, I.Q. tests in schools used for tracking students are simply "done" by counselors who have it in their job descriptions. There is no contestation of place or assertion of context that might challenge the status quo. The problem is that in reinforcing the status quo in terms of power structures, standard operating procedures, and "that's the real world" dismissive rhetoric, student knowing is limited to sanctioned information provided in stratified, uncontested classroom spaces. The polar opposite, however, is emphatically not the point. That is, just because Code criticizes the lack of situated knowledge, she is not arguing that any one view is equal to any (and every) other view. "Rather," writes Code about situated knowledge, "it *engages critically in and with* the material and affective-political detail of situations, as natural sites of knowledge making inhabited by particular fallible, vulnerable human beings." 36

These human beings, students and teachers for the purpose of this paper, are situated in their knowledges insofar as they are aware of their own situatedness. They must be "willing to examine the specificities and implications of [their] positioning, to engage in self-scrutiny....Yet in consequence of [their] negotiated, deliberative dimension, such scrutiny reduces neither to monologic introspection nor an individualistic retreat into [relativistic] autobiography."³⁷ The point here is to guard against an "anything goes" posture because it goes directly against epistemic responsibility and the sociality of knowledge making and re-making.

Schools factor into this epistemological discussion quite easily, I assert, although they are rarely raised in epistemological discourse. Even Code, as noted earlier, glosses over the institution of schooling while taking on medicine, law, science, developmental psychology, etc. My point, then, has been to insert schools, students, and teachers into the discourse in order to provide an analysis of schooling that borrows directly from epistemology, but an epistemology that understands the ecology of humans. By extending this critique into the realm of schooling, my goal has been to update and expand on historical notions of warranted assertibility applied to social and school settings.³⁸

A large part of this extension is the focus on location and context for agentic knowing. Students and teachers will only be able to develop themselves and each other when traditional epistemological assumptions are contested and overcome. This requires of teachers and students to identify and utilize their ecological spaces (classrooms, labs, schools, communities, family lives, etc.) as views from somewhere that are necessary elements in their mutual learning. Contesting traditional epistemological assumptions in schools has less to do with the physical spaces students and teachers occupy, though those spaces are important. Contesting traditional assumptions in schools has more to do with the structural limitations reified in education policy and practice that preclude agentic knowing and critical investigation.

Code offers us a way of thinking about schools and schooling that might be the very bridge philosophy of education needs to traverse in order to better link philosophy and schooling together. By weaving situated knowledge, strong objectivity, epistemic responsibility, and a modified coherentism together for the purpose of better understanding student knowledge/agentic knowing, this paper is arguing for a new look at epistemology as a means of

helping both students and teachers in their quests for understanding and meaning-making.

NOTES

- ¹ See Herbert M. Kliebard, *The Struggle for the American Curriculum, 1893-1958* (New York: RoutledgeFalmer, 2004); Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago: University of Chicago Press, 1998); Christopher J. Lucas, *American Higher Education: A History* (New York: St. Martin's Griffin, 1994); Sheila Slaughter and Gary Rhoades, *Academic Capitalism and the New Economy: Markets, State, and Higher Education* (Baltimore: The Johns Hopkins University Press, 2004); Benjamin Baez and Deron Boyles, *The Politics of Inquiry: Education Research and the "Culture of Science"* (Albany: SUNY Press, 2009); and Deborah Meier and George Wood, eds., *Many Children Left Behind: How the No Child Left Behind Act Is Damaging Our Children and Our Schools* (Boston: Beacon Press, 2004).
- ² While guarding against what Code calls "psychologism," I borrow from Albert Bandura and social cognitive theory in formulating "agentic knower" and "agentic knowing." Bandura notes, "people are not just onlooking hosts of internal mechanisms orchestrated by environmental events. They are agents of experiences rather than undergoers of experiences.... It is not just exposure to stimulation, but agentic action in exploring, manipulating, and influencing the environment that counts." See Albert Bandura, "Social Cognitive Theory: An Agentic Perspective," *Annual Review of Psychology* 54 (2001): 1-26, 4.
- ³ Lorraine Code, "Knowing Ecologically: Feminist Theory and the Politics of Knowledge," paper presented at the Canadian Society for the History and Philosophy of Science, Toronto, Canada, 2002, abstract. http://www.er.uqam.ca/nobel/r20430/schps_toronto_2002/code.html (Accessed August 28, 2007)
- ⁴ Linda Martin Alcoff, *Real Knowing: New Versions of Coherence Theory* (Ithaca, NY: Cornell University Press, 1996); Lorraine Code, *Epistemic Responsibility* (Hanover, NH: University Press of New England, 1987); Lorraine Code, *Rhetorical Spaces: Essays on (Gendered) Locations* (New York: Routledge, 1995); Donna J. Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991); and Sandra Harding, "Rethinking Standpoint Epistemology: What is 'Strong Objectivity'?" in Linda Alcoff and Elizabeth Potter, *Feminist Epistemologies* (New York: Routledge, 1993).
- ⁵ Jon Simons, "Knowing and Doing, Skepticism and Coherence," *Political Theory* 28, no. 2 (April, 2000): 273-278, 274. See, also, Maureen Linker,

- "Review Essay: A Coherentist Epistemology with Integrity," *Philosophy & Social Criticism* 25, no. 3 (1999): 121-124.
- ⁶ Alcoff and Potter, *Feminist Epistemologies*, 3. Italics in original.
- ⁷ Maureen Linker, "Review Essay: A Coherentist Epistemology with Integrity," *Philosophy & Social Criticism* 25, no. 3 (1999): 121-124, 123.
- ⁸ As Linker (ibid., 123) puts it, "Davidson's holism, his characterization of the principle of 'charity' and his separation between metaphysics and epistemology, all provide Alcoff with some 'ground level' on which a common picture of the world could be constructed. Putnam's 'internal realism' and its contrast with 'subjective idealism' help to ward off the threat of 'unbridled relativism' in Alcoff's context-sensitive version of coherence."

- ¹⁰ Sandra Harding, "'Strong Objectivity': A Response to the New Objectivity Question," *Synthese* 104 (1995): 331-349, 335, emphasis in original. See, also, Linda Martin Alcoff, "Objectivity and Its Politics," *New Literary History* 32, no. 4 (2001): 835-848.
- ¹¹ Robert Proctor, *Racial Hygiene: Medicine Under the Nazis* (Cambridge, MA: Harvard University Press, 1988/2006), 293.
- ¹² Harding, "Strong Objectivity," 336.

- ¹⁵ Lorraine Code, *Ecological Thinking: The Politics of Epistemic Location* (Oxford, UK: Oxford University Press, 2006), 8-9. Italics in original.
- ¹⁶ Ibid., 9. See Max Horkheimer and Theodore Adorno, "The Concept of Enlightenment," in Carolyn Merchant, ed., *Ecology* (Atlantic Highlights, NJ: Humanities Press, 1994).
- ¹⁷ See Kevin D. Vinson and E. Wayne Ross, "Controlling Images: The Power of High-Stakes Testing," in Kenneth J. Saltman and David A. Gabbard, eds., *Education as Enforcement: The Militarization and Corporatization of Schools* (New York: RoutledgeFalmer, 2003), 241-257.
- ¹⁸ See Richard Levins and Richard C. Lewontin, "Dialectics and Reductionism in Ecology," in David Keller and Golley, eds., *The Philosophy of Ecology: From Science to Synthesis* (Athens: University of Georgia Press, 2000).

⁹ Ibid., 123.

¹³ Ibid., 347.

¹⁴ Ibid., 347.

¹⁹ Code, Ecological Thinking, 9.

²⁰ Ibid., 8-9.

²¹ John Heil, "*Epistemic Responsibility* by Lorraine Code," *Philosophy and Phenomenological Research* 49, no. 4 (June 1989): 742-745, 743.

²² Code, *Ecological Thinking*, 154-157.

²³ Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives," *Feminist Studies* 14, no. 3 (Autumn, 1988): 575-599, 581.

²⁴ Ibid., 581.

²⁵ Ibid., 581.

²⁶ Ibid., 584.

²⁷ Ibid., 584

²⁸ Ibid., 584, italics in original.

²⁹ Maxine Greene, *The Dialectic of Freedom* (New York: Teachers College Press, 1988), 134.

³⁰ Code, *Ecological Thinking*, 47.

³¹ Ibid., 47.

³² Ibid., 47.

³³ Ibid., 47.

³⁴ Ibid., 79. Italics in original. Code distinguishes individualism from individuality. Individualism is a form of solipsism whereas individualism requires sociality. See Code, *Ecological Thinking*, 139, 167n.

³⁵ Thomas B. Colwell, Jr., "The Ecological Basis of Human Community," *Educational Theory* 21, no. 4 (Fall 1971): 418-33.

³⁶ Ibid., 117, italics in original.

³⁷ Ibid., 117.

³⁸ See, for example, John Dewey, *Logic: The Theory of Inquiry* (New York: Henry Holt, 1938).